INCH-POUND

MIL-PRF-48656B(AR)
20 December 1999
SUPERSEDING
MIL-C-48656A(AR)
20 March 1989

PERFORMANCE SPECIFICATION

CARTRIDGES, SHOTSHELL

This specification is approved for use by the U.S. Army Armament Research, Development and Engineering Center, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers shotshell cartridges for use in military shotgun weapons (see 6.1).

1.2 Classification. Items covered by this specification are as follows:

Type I – Combat / Riot or Military Police Applications (12 Gauge No. 00 Buckshot)
Type II - Training and Marksmanship Applications (12 Gauge No. 9 Shot & No. 7 ½ Shot)

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are referenced in sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification or documents that are recommended for additional information or examples. While every effort has been made to ensure the completeness of this list, document users are cautioned they must meet all requirements as cited in sections 3 and 4 of this specification, whether or not they are listed.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards and handbooks form a part of this specification to the extent specified herein. Unless otherwise specified, the issues are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document, should be addressed to: Commander, U.S. Army TACOM-ARDEC, ATTN: AMSTA-AR-QAD, Picatinny Arsenal, New Jersey 07806-5000 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A FSC 1305

STANDARDS

DEPARTMENT OF DEFENSE

MIL-STD-286	Propellants, Solid: Sampling, Examination & Testing
MIL-STD-636	Visual Standards for Small Arms Ammunition through Caliber .50
MIL-STD-1168	Ammunition Lot Numbering
MIL-STD-1916	DOD Preferred Methods for Acceptance of Products

(Unless otherwise indicated, copies of the above specifications, standards, and handbooks are available from the Standardization Documents Order Desk, 700 Robbins Avenue, Bldg. 4D, Philadelphia, PA 19111-5094.)

2.3 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation (see 6.2).

SPORTING ARMS & AMMUNITION MANUFACTURER'S INSTITUTE

SAAMI	Technical Committee Manual Vol. IV Shotshell

(Copies of SAAMI manuals are available from Secretary, Sporting Arms & Ammunition Manufacturer's Institute, PO Box 838, Branford, CT 06405.)

AMERICAN NATIONAL STANDARDS INSTITUTE

ANSI/SAAMI Z299.2	Voluntary Industry Performance Standards for Pressure and Velocity of Shotshell Ammunition for the Use of Commercial Manufacturers

(Copies of ANSI Standards are available from American National Standards Institute, 11 West 42nd Street, 13th Floor, New York, NY 10036)

UN ST/SG/AC.10/11	Recommendations on the Transport of Dangerous Goods, Tests and Criteria

(Copies of UN ST/SG/AC.10/11 are available from United Nations Publications, New York, NY 10017)

2.4 Order of precedence. In the event of conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 First article. When specified in the contract (see 6.2), a sample shall be subjected to first article inspection in accordance with 4.2.

3.2 Operating requirements.

3.2.1 Primed case sensitivity. The energy imparted by a steel ball weighing 1.94 ± 0.02 ounces falling 12 inches onto a simulated firing pin shall cause initiation of the primer. The energy imparted by a steel ball weighing 1.94 ± 0.02 ounces falling 2 inches onto a simulated firing pin (the simulated firing pin shall have a nominal weight of 70 grains and a spherical end radius of 0.0500 ± 0.0025 inches) shall not cause initiation of the primer.

3.2.2 Velocity. At a point 3.0 ± 0.5 feet from the muzzle of a 30.0 ± 0.1 inch test barrel, the mean velocity and the standard deviation from the mean velocity shall be as shown in Table I.

TABLE I. Bullet velocity requirements

TYPE	NOMENCLATURE	VEL (FPS) AMBIENT	SD (FPS)	VEL (FPS) HOT	SD (FPS)	VEL (FPS) COLD	SD (FPS)
I	No. 00 Buckshot	1,325 ± 50	25	1415 MAX 1198 MIN	25	1415 MAX 1198 MIN	30
II	No. 9 Shot	1,145 ± 90	25	-	-	-	-
II	No. 7 ½ Shot	1,145 ± 90	25	-	-	-	-

3.2.3 Chamber pressure. The maximum average chamber pressure shall not exceed 12,500 LUP (lead units of pressure) or 13,000 PSI (pounds per square inch). The maximum individual pressure shall not exceed 14,500 LUP or 15,000 PSI. The cartridges shall be tested at ambient, hot and cold temperatures.

3.2.4 Function and casualty. The cartridge shall function without casualty in both manual and semiautomatic shotguns.

3.2.5 Pattern. The pattern shall be as follows for the appropriate shot:

No. 00 Buckshot – The average percentage of pellets inside or touching a 30 inch circle at a range of 40 yards shall be no less than 65 percent when fired through a test barrel 29.0 ± 2.5 inches long with a full choke.

Number 9 Shot – The average percentage of pellets inside or touching a 30 inch circle at a range of 25 yards shall be no less than 50 percent when fired through a test barrel 26.0 ± 0.5 inches long with a skeet choke.

Number 7 ½ Shot – The average percentage of pellets inside or touching a 30 inch circle at a range of 40 yards shall be no less than 70 percent when fired through a test barrel 28.0 ± 2.5 inches long with a full choke.

3.2.6 Shot Type. The cartridges shall have the following shot:

No. 00 Buckshot – The cartridge shall contain 9 pellets of lead-free commercial shot size No. 00 Buck in accordance with SAAMI Technical Committee Manual Vol. IV Shotshell for No. 00 Buckshot rounds.

No. 7 ½ Shot – The cartridge shall contain 1 1/8 ounces + 3 percent – 5 percent of lead-free commercial shot size number 7 ½ in accordance with SAAMI Technical Committee Manual Vol. IV Shotshell for No. 7 ½ Shot rounds.

No. 9 Shot – The cartridge shall contain 1 1/8 ounces + 3 percent – 5 percent of lead-free commercial shot size number 9 in accordance with SAAMI Technical Committee Manual Vol. IV Shotshell for No. 9 Shot rounds.

3.3 Interface and interoperability requirements.

3.3.1 Cartridge visual and physical parameters. The cartridge dimensions shall be as cited in ANSI/SAAMI Z299.2 for a 12 gauge cartridge with a 2-3/4 inch chamber. In addition, cartridges shall be free from dents, scratches and other imperfections.

3.4 Support and ownership.

3.4.1 Ammunition lot numbering. Each lot of ammunition shall be identified by type and lot number. Lot numbering/identification shall be in accordance with MIL-STD-1168.

3.4.2 Cartridge identification. The side of each cartridge case shall be marked to identify it as a No. 00 Buckshot, No. 7 ½ shot or No. 9 shot round.

3.4.3 Final hazard classification. The cartridge shall comply with the following Hazard Classification when packaged in commercial packaging or in accordance with packaging requirements in the contract.

DOD Hazard Class/Div: 1.4
DOD Hazard Compatibility Group: S
DOT Hazard Class: 1.4S
Net Explosive Weight: 0.004 lbs.

3.4.4 Propellant stability. All propellants shall be stable over a minimum time period of 5 years.

4. VERIFICATION.

TABLE II. Requirements / Verification Cross Reference Matrix

METHOD OF VERIFICATION
N/A – Not Applicable
1 – Analysis
2 – Demonstration
3 – Examination
4 – Test

CLASS OF VERIFICATION

A – First Article Inspection
B – Conformance Verification

Section 3 Requirement	Verification Methods					Verification Class		Section 4 Method
	N/A	1	2	3	4	A	B	
3.1				X	X	X		4.2
3.2.1					X	X	X	4.4.1
3.2.2					X	X	X	4.4.2
3.2.3					X	X	X	4.4.3
3.2.4					X	X	X	4.4.4
3.2.5					X	X	X	4.4.5
3.2.6				X		X	X	4.4.6
3.3.1 & 3.4.2				X		X	X	4.4.7 & 4.4.9
3.4.1				X		X	X	4.4.8
3.4.2				X		X	X	4.4.9
3.4.3					X	X		4.4.10
3.4.4					X	X		4.4.11

4.1 Classification of verifications. The inspection requirements specified herein are classified as follows:

a. First article inspection (see 4.2)
b. Conformance verification (see 4.3)

4.1.1 Verification conditions. Unless otherwise specified, all inspections shall be performed in accordance with the test conditions specified in section 4.4.

4.2 First article inspection. When specified in the contract, a sample of the cartridge and components shall be subjected to first article verification in accordance with the Requirements/ Verification Cross Reference Matrix, Table III.

4.2.1 First article quantity. First article verification shall be performed on the quantity of cartridges, primed cases and grams of propellant as specified in Table III.

4.2.2 Inspections to be performed. As determined by the Government, the first article assemblies, components and test specimens may be subjected to any or all of the examinations and tests specified in this specification (see Table III) and be inspected for compliance with any or all requirements of the specification and the applicable drawings.

4.2.3 First article rejection. If any assembly, component or test specimen fails to comply with any of the applicable requirements, the first article sample shall be rejected.

TABLE III – First article inspection

EXAMINATION OR TEST	CONFORMANCE CRITERIA		REQUIREMENT PARAGRAPH	INSPECTION METHOD
	SAMPLE	ACC-REJ 1/		
Primed case sensitivity	30	Note 1	3.2.1	4.4.1
Velocity (ambient, hot, cold)	50, 50, 50	Note 2	3.2.2	4.4.2
Chamber pressure (ambient, hot, cold)	50, 50, 50	Note 3	3.2.3	4.4.3
Function and casualty Type I (ambient, hot, cold) Type II (ambient)	 100, 100, 100 100	 Note 4	3.2.4	4.4.4
Pattern	30	Note 5	3.2.5	4.4.5
Shot type	30	Note 6	3.2.6	4.4.6
Examination for defects	SEE MIL-STD-1916		3.3.1, 3.4.1 & 3.4.2	4.4.7, 4.4.8 & 4.4.9
Thermal stability	150 gm	0 / 1	3.4.3	4.4.10
Propellant stability	50 gm	0 / 1	3.4.6	4.4.11

1/ See notes after Table IV.

4.3 Conformance verification.

4.3.1 Inspection lot formation. Lot formation shall be in accordance with the lot formation requirement of MIL-STD-1916, paragraph 4.2.2.

4.3.2 Conformance inspection. The sample cartridges shall be subjected to conformance verification in accordance with Table IV.

4.3.3 Examinations and tests. Reference shall be made to MIL-STD-1916 for the definition of Critical, Major, and Minor defects. The attribute sampling plan required for the examination for defects in Table IV shall be in accordance with the attribute sampling plan of MIL-STD-1916, using verification level IV for Major characteristics and level III for Minor characteristics. One hundred percent inspection shall be used on all Critical characteristics.

4.3.4 Alternative conformance provisions. Unless otherwise specified herein or provided for in the contract, alternative conformance procedures, methods or equipment, such as statistical process control, tool control, or other types of sampling plans, may be used by the contractor when they provide, as a minimum, the level of quality assurance required by the provisions herein.

TABLE IV – Conformance inspection

EXAMINATION OR TEST	CONFORMANCE CRITERIA		REQUIREMENT PARAGRAPH	INSPECTION METHOD
	SAMPLE	ACC-REJ		
Primed case sensitivity	30	Note 1	3.2.1	4.4.1
Velocity (ambient, hot, cold)	30, 30, 30	Note 2	3.2.2	4.4.2
Chamber pressure (ambient, hot, cold)	30, 30, 30	Note 3	3.2.3	4.4.3
Function and casualty Type I (ambient, hot, cold) Type II (ambient)	100,100, 100 100	Note 4	3.2.4	4.4.4
Pattern	30	Note 5	3.2.5	4.4.5
Shot type	30	Note 6	3.2.6	4.4.6
Examination for defects	See MIL-STD-1916		3.3.1, 3.4.1 & 3.4.2	4.4.7, 4.4.8 & 4.4.9

Notes:

1. The criteria for primed case sensitivity acceptance are contained in 3.2.1 & 4.4.1.
2. The criteria for velocity acceptance are contained in Table I.
3. The criteria for chamber pressure are contained in 3.2.3.
4. The criteria for function and casualty of the sample cartridges, tested at ambient, hot and cold temperatures for Type I rounds and at ambient temperature for Type II rounds, are contained in Table VI, Firing defects.
5. The criteria for pattern acceptance are contained in 3.2.5
6. The criteria for shot type acceptance are contained in 3.2.6

TABLE V. Examination for defects

EXAMINATION	CONFORMANCE CRITERIA		REQUIREMENT PARAGRAPH	INSPECTION METHOD
	SAMPLE	ACC-REJ 3/		
Critical:				
1. Head or rim split 1/	100%	0 / 1	3.3.1	Visual
2. Mashed head 1/	100%	0 / 1	3.3.1	Visual
3. No primer 1/, 4/	100%	0 / 1	3.3.1	Visual
4. Cocked primer 1/, 4/	100%	0 / 1	3.3.1	Visual
5. Inverted primer 1/, 4/	100%	0 / 1	3.3.1	Visual
Major:				
101. Perforated or split case 1/	Level IV 2/		3.3.1	Visual
102. Cartridge length, max	Level IV		3.3.1	SME
103. Rim thickness, max	Level IV		3.3.1	SME
104. Head diameter, max	Level IV		3.3.1	SME
105. Case diameter, max	Level IV		3.3.1	SME
106. Illegible or missing cartridge marking 1/	Level IV		3.4.2	Visual
107. Open crimp 1/	Level IV		3.3.1	Visual
108. Defective head 1/	Level IV		3.3.1	Visual
109. Sheared case over head 1/	Level IV		3.3.1	Visual
110. Defective body 1/	Level IV		3.3.1	Visual
111. Battery cup defects 1/	Level IV		3.3.1	Visual
112. Primer above flush 1/	Level IV		3.3.1	SME
Minor:				
201. Improper lot number 1/	Level III		3.4.1	4.4.8

Notes:
1/ Refer to shotshell/shotgun section of MIL-STD-636 for Visual Standards of defects.

2/ Levels III and IV refer to those verification levels of Table II attributes sampling plan in MIL-STD-1916.

3/ Accept on 0 and reject on 1

4/ For Type II cartridges: Critical defect No. 3 becomes Major defect No. 113
Critical defect No. 4 becomes Major defect No. 114
Critical defect No. 5 becomes Major defect No. 115

TABLE VI– Firing defects

Firing Defects	Acceptance	Rejection
1. Burst rim	0	1
2. Blown primer or battery cup	0	1
3. Wad or other obstruction remaining in bore	0	1
4. Blown base wad	0	1
5. Head pulled off	0	1
6. Head cut off	0	1
7. Dropped primer or battery cup	0	1
8. Misfire	0	1
9. Body cut off	0	1
10. Head split	1	2
11. Split knurl	1	2
12. Split mouth	1	2
13. Partial cut off	1	2
14. Rupture	1	2
15. Partial split	1	2
16. Head start	1	2
17. Bulged rim	1	2
18. Body split	1	2
19. Powder burns	1	2
20. Primer set back	1	2
21. Battery cup set back	1	2
22. Primer pierced	1	2
23. Primer punctured	1	2
24. Cumulative defects for 10 - 23	3	4

NOTE: For defects refer to MIL-STD-636, shotshell cartridges section, for firing defect standards.

4.4 Methods of inspection.

4.4.1 Primed case sensitivity verification. The primed case sensitivity testing shall be performed as specified in SAAMI Technical Committee Manual Vol. IV Shotshell. Empty primed shotshell cartridges shall be tested for primer sensitivity. Two-thirds of the sample shall be tested at a height of 12 inches and one-third of the sample shall be tested at a height of 2 inches. If one or more cartridge primers fail at either height, the sample fails and a sensitivity rundown test shall be conducted. The sensitivity rundown test shall consist of a 25 cartridge test at each 1 inch increment of height between 0 percent and 100 percent firing. If the average critical height (H) plus four standard deviations (4 sigma) exceeds 14 inches, or if the average critical height minus two standard deviations (2 sigma) is less than 1 inch, the lot of cartridges shall be rejected. The average critical height (H) is defined as the mean height at which 50 percent of the primers being tested will fire.

4.4.2 Velocity verification. The velocity test shall be conducted in accordance with SAAMI Technical Committee Manual Vol. IV Shotshell and ANSI/SAAMI Z299.2. The sample cartridges shall be temperature conditioned as follows (unpackaged cartridges) for four hours minimum:

a. Ambient: 70 ± 10 degrees Fahrenheit
b. Hot: 125 ± 5 degrees Fahrenheit
c. Cold: -20 ± 5 degrees Fahrenheit

4.4.3 Chamber pressure verification. The chamber pressure test shall be conducted in accordance with SAAMI Technical Committee Manual Vol. IV Shotshell and ANSI/SAAMI Z299.2. Conditioning for the sample cartridges temperature shall be as follows (unpackaged cartridges) for four hours minimum:

a. Ambient: 70 ± 10 degrees Fahrenheit
b. Hot: 125 ± 5 degrees Fahrenheit
c. Cold: -20 ± 5 degrees Fahrenheit

4.4.4 Function and casualty verification. Cartridges shall be fired in a ratio of approximately 50 percent – 50 percent for each temperature through two unaltered shotguns per Table VII below. Conditioning for the sample cartridges temperature shall be as follows (unpackaged cartridges) for four hours minimum:

Type I and Type II cartridges - Ambient, 70 ± 10 degrees Fahrenheit
Type I cartridges - Hot, 125 ± 5 degrees Fahrenheit
Type I cartridges - Cold, -20 ± 5 degrees Fahrenheit

Semi-automatic weapons shall have a total chamber and magazine capacity of five cartridges minimum. The weapons shall be loaded to capacity and the test performed until the total test sample quantity is reached.

TABLE VII – Function and casualty weapons

	Type I	Type II
Manual	2	1
Semi-automatic	2	1

4.4.5 Pattern verification. The pattern test shall be conducted in accordance with SAAMI Technical Committee Manual Vol. IV Shotshell.

4.4.6 Shot type verification. The shot from each of five cartridges shall be weighed, and the pellets shall be counted. The number of pellets per pound shall be calculated for each cartridge, and the average of the pellet counts per pound shall be calculated. The average pellet count shall vary from the nominal value cited in 3.2.6 by no more than five percent.

4.4.7 Cartridge visual and physical parameters verification. All test cartridges shall be inspected for the defects listed in Table V. The criteria for grading defects shall be in accordance with MIL-STD-636.

4.4.8 Ammunition lot numbering verification. Visually verify that an ammunition lot number has been assigned to each lot of 12 gauge shotshell cartridges in accordance with MIL-STD-1168.

4.4.9 Cartridge identification verification. Visually verify that the cartridge identification marking is as follows on the case for the appropriate round:

No.00 Buckshot: CRTG, 12 GAUGE
9 PELLETS
NO. 00 BUCKSHOT

No. 7 ½ Shot: CRTG, 12 GAUGE
1 1/8 OZ.
NO. 7 ½ SHOT

No. 9 Shot: CRTG, 12 GAUGE
1 1/8 OZ.
NO. 9 SHOT

4.4.10 Final hazard classification verification. Compliance with the FHC requirements specified at paragraph 3.4.3 shall be validated during the First Article Test (FAT). FAT tests for Final Hazard Classification shall be in accordance with UN ST/SG/AC.10/11, Recommendations on the Transportation of Dangerous Goods, Tests and Criteria. The following test series shall be used: 4.a for thermal stability. Test results from prior in-house verifications of these tests are acceptable.

4.4.11 Propellant stability verification. Propellant stability tests shall be conducted in accordance with the test procedures listed below. Stability is demonstrated when results comply with the requirements listed below.

Test	Reference Document	Test Procedure Description	Requirement
Heat	MIL-STD-286	Method 404.1.2	For single base propellants - Methyl violet paper shall not change to salmon pink in less than 40 minutes, and the sample shall not explode in less than 5 hours at 134.5°C. For double base propellants - Methyl violet paper shall not change to salmon pink in less than 40 minutes, and no fumes given off less than 1 hour at 120°C.
Storage Degradation/ Surveillance	MIL-STD-286	Method 407.1	No fumes in less than 30 days of storage at 65.5°C.

5. PACKAGING.

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of materiel is to be performed by DOD personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the Military Department's System Command. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. These cartridges are intended for use in US military weapons for tactical and training purposes. The 12 gauge cartridges procured to this specification are military unique because they must meet the military's propellant stability and shelf life storage requirements of 5 years, which exceeds commercial industries normal requirements. They must also meet the high and low temperature requirements for the combat rounds.

6.2 Acquisition requirements. Acquisition documents should specify the following:

a. Title, number and date of this specification.

b. Issue of DODISS to be sited in the solicitation, and, if required, the specific issue of individual documents referenced (see 2.2.1).

c. Requirements for submission of first article.

d. Requirement and provisions for submission of test data as required.

e. Certificate of conformance for each lot of ammunition.

f. Requirements for Ammunition Lot Numbering.

g. Packaging requirements (see section 5.1): The following is provided as reference information.

Packaging will be level A for Type I rounds and level B for Type II rounds:

Type I cartrtidges can be packed in accordance with packaging drawing 9396206 (Cartridge, 12 Gauge Shotshell, No. 00 Buckshot, NSN 1305-01-232-8338). Type II cartridges can be unit packed in cartons in accordance with the best commercial practice. The packed cartridges will be overpacked in a (4G) fiberboard box Class WWVR, Grade V3c or W5c, Style RSC, waterproofed per ASTM D5118 and closed in accordance with ASTM D1974. Five hundred rounds is a standard quantity per fiberboard box (25 cartridges/carton, 20 cartons/fiberboard box) (Cartridge, 12 Gauge Shotshell, No. $7^1/_2$ Shot, NSN 1305-01-232-8339; and Cartridge, 12 Gauge Shotshell, No. 9 Shot, NSN 1305-01-232-7415).

h. If the Final Hazard Classification on record was based on government packaging drawings it may be necessary to include those packaging drawings in the contract to ensure continued legal transportation. Determination should be made by AMSTA-AR-QAW-S.

6.3 Reference drawings. Drawings 9390438, 9390440 and 9390439 may be used as references for designs that have been qualified.

6.4 Ammunition lot numbers. Ammunition lot numbers require ammunition data cards in accordance with MIL-STD-1168.

6.5 Submission of alternative conformance provisions. All contractor proposed alternative conformance provisions will be submitted to the Government for evaluation / approval as directed by the contracting activity.

6.6 Waivers. Requirement for lead-free shot in paragraph 3.2.6, Shot Type, may be waived until November 30, 2000, due to non-availability of lead-free shot that meets velocity requirements. Contract awards made subsequent to that date must comply with the requirement as stated.

6.7 Subject term (keyword) listing.

12 Gauge
Shotgun
Combat
Riot
Military Police
Training

6.8 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Custodian:
Army-AR

Preparing activity:
Army-AR

(Project 1305-0214)

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.

2. The submitter of this form must complete blocks 4, 5, 6, and 7, and send to preparing activity.

3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced documents(s) or to amend contractual requirements.

I RECOMMEND A CHANGE:	1. DOCUMENT NUMBER	2. DOCUMENT DATE (YYYYMMDD)
	MIL-PRF-48656 (AR)	20 DECEMBER 1999

DOCUMENT TITLE
CARTRIDGES, SHOTSHELL

4. NATURE OF CHANGE (*Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.*)

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME *(Last, First, Middle Initial)*	b. ORGANIZATION	
c. ADDRESS (*Include Zip Code*)	d. TELEPHONE (*Include Area Code*) (1) Commercial (2) DSN (*if applicable*)	7. DATE SUBMITTED (*YYYYMMDD*)

8. PREPARING ACTIVITY

a. NAME U.S. Army TACOM-ARDEC **Standardization Team**	**b. TELEPHONE (*Include Area Code*)** **(1) Commercial** **(2) DSN** **(973) 724-5822** **880-5822**
c. ADDRESS (*Include Zip Code*) **Attn; AMSTA-AR-QAW-E** **Picatinny Arsenal, NJ 07806-5000**	IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT: **Defense Standardization Program Office (DLSC-LM)** 8725 John J. Kingman Road, Suite 2533 Fort Belvoir, Virginia 22060-6221 Telephone (703) 767-6888 DSN 427-6888